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19th International Symposium on Heavy Ion Inertial Fusion

Sunday 12 August 2012

Welcome reception - Crystal Ballroom (17:00-19:00)

Monday 13 August 2012

Welcome, Introduction, & Logistics: (AM refreshments served) - Crystal Ballroom (08:15-08:50)

Program overviews, Chairs: Bill Herrmannsfeldt and Grant Logan - Crystal Ballroom (08:50-12:40)

time	title	presenter
08:50	National Research Council Assessment of the Prospects for Inertial Fusion Energy	DAVIDSON, Ronald
09:15	Experiments towards HIF at FAIR	SHARKOV, Boris
09:40	Japanese Program Overview on HIF and Related Research Activities	HORIOKA, K.
10:05	High Energy Density Physics at ITP	GOLUBEV, A.
10:30	Discussion	
10:45	Activities in heavy ion beam driven HEDP and IFE research at IMP, Lanzhou	ZHAO, Y.
11:10	The University of Maryland Electron Ring Program	KISHEK, R. A.
11:35	Break to pick up lunch	
11:55	The NDCX-II Engineering Design	WALDRON, William

HIF Targets - Chairs: B. Sharkov and S. Kawata - Featured Posters: A. Ortner, A Bret, I.V. Lomonosov - Crystal Ballroom (13:55-17:30)

time	title	presenter
13:55	Heavy Ion Targets	BANGERTER, Roger
14:20	A look at past heavy ion target designs	TABAK, Max
14:45	The X-target: a high-gain and robust target design for HIF	HENESTROZA, Enrique
15:10	Wobblers and Rayleigh-Taylor Instability Mitigation in HIF Target Implosion	KAWATAA, S.
15:35	Discussion	
15:50	Tamped Heavy Ion Targets	TERRY, Matt
16:15	Impact Ignition Design under Axi-symmetric Illumination System	MURAKAMI, M.
16:40	Fusion Ignition Simulations using a Particle Code	MORE, Richard
17:05	Two stage focusing for FAIR and HIAF	LOGAN, B.

X-Target Workshop (E. Henestroza, chair) - Crystal Ballroom (19:30-22:00)

Tuesday 14 August 2012

Daily Logistics: (AM refreshments served) - Crystal Ballroom (08:15-08:30)

- Conveners: Seidl, Peter; Barnard, John

Accelerator physics and technology I - Chairs: J. Kwan and A. Faltens - Featured Posters: R. Burke, K. Fukushima, T. Yoshimoto, R. Cassel - Crystal Ballroom (08:30-12:00)

time	title	presenter
08:30	Multiple beam induction linacs	SEIDL, Peter
08:55	Beam Dynamics for Induction Accelerators	LEE, Edward
09:20	KEK Digital Accelerator and Latest Switching Device R&D	TAKAYAMA, K.
09:45	Discussion	
10:05	Modeling HIF Relevant Longitudinal Dynamics in UMER	BEAUDOIN, B.
10:30	Accelerator Design for FAIR and Application to HIF	SPILLER, Peter-Juergen
10:55	Studies of Electrical Breakdown Processes across Vacuum Gaps	GRISHAM, L. R.
11:20	The Single Pass RF Driver	BURKE, Robert

Accelerator physics and technology II - Chairs: R. Bangerter and P-J SPiller - Featured Posters: M.A. Dorf, R. Galloway, I. Brown, S. Ikeda - Crystal Ballroom (14:00-16:30)

time	title	presenter
14:00	Simulations of ion beams for NDCX-II	GROTE, D. P.
14:25	Simulations of beams in plasmas	VAY, Jean-Luc
14:50	Beam dynamics in a 1D beam model	LUND, Steven
15:15	Discussion	
15:40	Electron clouds in HIF drivers	COHEN, Ronald
16:05	Radio-Frequency and Magnetic Trap Simulations of Beam Propagation over Long Paths	OKAMOTO, H.

Target fabrication - Crystal Ballroom (16:30-16:55)

time	title	presenter
16:30	A Brief History of Target Fabrication at GA – Will We Have Targets To Allow Economically Feasible Inertial Fusion Energy?	GOODIN, Daniel

High Energy Density Laboratory Physics Workshop (P. Ni, chair) - Crystal Ballroom (19:30-22:00)

Wednesday 15 August 2012

Ion sources - Chair: K. Horikoa - Featured Posters: W.M. Sharp, M. Koepke, Y. Oguri, A. Yuen - Building 50 Auditorium (08:15-09:30)

time	title	presenter
08:15	Ion Sources for Heavy Ion Fusion	KWAN, Joe
08:40	Laser Ablation Ion Source	OKAMURA, Masahiro
09:05	Lithium Ion Sources	ROY, Prabir

Daily Logistics - Building 50 Auditorium (09:30-09:45)

- Conveners: Seidl, Peter; Barnard, John

NDCX-II - Chair: G. Deutsch - Featured Posters: W.M. Sharp, M. Koepke, Y. Oguri, A. Yuen - Building 50 Auditorium (09:45-11:15)

time	title	presenter
09:45	Discussion	
10:00	NDCX-II Beam Dynamics	FRIEDMAN, Alex
10:25	NDCX-II Experimental Plans and Target Simulations	BARNARD, John
10:50	NDCX-II Commissioning Highlights	LIDIA, Steven

NDCX-II Tour - 58 high bay (11:30-12:10)

National Ignition Facility Presentation and Tour, LLNL - B482 Auditorium and NIF (13:30-16:30)

time	title	presenter
13:30	Badging at LLNL	
14:15	Status of NIF (Lindl)	
15:30	Tour of the National Ignition Facility	

Social Event (optional) - Underdog Wine Bar (17:00-18:30)

Thursday 16 August 2012

Daily Logistics - Crystal Ballroom (08:15-08:30)

- Conveners: Seidl, Peter; Barnard, John

Drift compression and final focus - Chairs: A. Golubev and R.A. Kishek - Featured Posters: A. Friedman, A. Burke, C. Helsley, Y. Sakai - Crystal Ballroom (08:30-11:40)

time	title	presenter
08:30	Drift compression and Final Focus (review)	KAGANOVICH, Igor
08:55	Chamber Transport for Heavy Ion Fusion	OLSON, Craig
09:20	Plasma Sources for Drivers and NDCX-II	GILSON, Erik
09:45	Discussion	
10:00	Study on Beam Dynamics during Longitudinal Bunch Compression using Compact Simulator Supported by Theoretical and Numerical Approaches for Heavy Ion Fusion	KIKUCHI, Takashi
10:25	Effects of Beam-Plasma Instabilities on Neutralized Propagation of Intense Ion Beams in Background Plasma*	STARTSEV, E. A.
10:50	Design considerations for a wobbler in a HIF driver	QIN, Hong
11:15	Rare Isotope Accelerator Project in Korea and Its Application to High Energy Density Sciences	CHUNG, Moses

Chamber, Technology, and Systems - Chair: E. Lee - Crystal Ballroom (13:20-14:35)

time	title	presenter
13:20	The Current Development Status of Fluoride Salt Cooled High Temperature Reactor (FHR) Technology And its Overlap with HIF Target Chamber Concepts	SCARLAT, Raluca
13:45	Liquid wall chambers for HIF	MOIR, R. W.
14:10	Economic Viability of Large-scale Fusion Systems	HELSLEY, Charles

Poster session - Boiler Room (14:35-17:15)

title	presenter	board
Advantages of the Single Pass RF Driver for Pellet Implosion and Ignition	BURKE, Robert	
All-Electron Path Integral Simulations of Warm Dense Matter: Application to Water and Carbon	DRIVER, K. P.	
Alternate Operating Scenarios For NDCX-II*	SHARP, W. M.	
Manipulations for delivering HIF beams onto targets: (1) Smoothing by arc wobblers, (2) Differential acceleration in final beam lines	FRIEDMAN, Alex	
Can FPC's Single-Pass RF Driver Produce a 50 μm Spot Size for Fast Ignition?	BURKE, Alex	
Development of a User-Facility Plan for NDCX-II	KOEPKE, Mark	

Electro-magnetically driven shock and dissociated hydrogen target for stopping power measurement	KONDO, K.	
Evaluation of Transport Properties in Warm Dense State by using Isochoric Pulsed-power Discharges	MIKI, Yasutoshi	
Experimental Verification of Stop-Band Distributions in Doublet Focusing Channels	FUKUSHIMA, Kei	
Experimental investigation of heavy ion energy loss in dense plasma, generated by laser induced soft X-rays	ORTNER, Alex	
Generation of Multi-charged High Current Ion Beams using the SMIS 37 Gas-dynamic Electron Cyclotron Resonance (ECR) Ion Source	M. A. DORF, M. A.	
HVDC Dynamitron® for the Multi-Beam Single Pass RF Driver	GALLOWAY, Richard A.	
Harmonic analysis of irradiation asymmetry for cylindrical implosions driven by high-frequency rotating ion beams	BRET, A.	
Heavy Ion Beam Acceleration in the KEK Digital Accelerator: Induction Acceleration from 200 keV to a few tens of MeV	YOSHIMOTO, T.	
International Shock-Wave data base	LOMONOSOV, I. V.	
Ion Sources for the Multi-Isotope Single-Pass RF Driver	BROWN, Ian G.	
Kicker Magnets and Modulators for Single-Pass RF Driver HIF	CASSEL, Richard	
Magnetic Control of Laser Ablation Plasma for High-flux Ion Injectors	IKEDA, S.	
Numerical Study of Heavy-Ion Stopping in Foam Targets with One-Dimensional Subcell-Scale Hydrodynamic Motions	OGURI, Y.	
Rarefaction Waves in Van Der Waals Fluids	YUEN, Albert	
Single Pass RF Driver (SPRFD) Chamber Considerations	HELSLEY, Charles	
Study on pulsed-discharge devices with high current rising rate for point spot short-wavelength source in dense plasma observations	TACHINAMI, Fumitaka	
Study on the Dynamics during Longitudinal Compression of Intense Charged Particle Beams with Compact Simulator	SAKAI, Y.	

Banquet: Chabot Space and Science Center (<http://www.chabotspace.org/index.htm>) - 2nd floor (18:00-21:30)

Friday 17 August 2012

Daily Logistics - Crystal Ballroom (08:15-08:30)

- Conveners: Seidl, Peter; Barnard, John

High energy density physics & Warm dense matter - Chairs: Y. Oguri and R. Davidson - Featured Posters: K.P. Driver, K. Kondo, Y. Miki, F. Tachinami - Crystal Ballroom (08:30-11:15)

time	title	presenter
08:30	Stopping of Heavy Ion Beams in Dense Plasmas of ICF and WDM Concern	DEUTSCH, Claude
08:55	Ion Beam Focusing with Cone Optics for WDM Experiments	HASEGAWA, J.
09:20	X-pinch Diagnostic for Warm Dense Matter and Pulsed-power Developments in Nagaoka University of Technology	SASAKI, Toru
09:45	Discussion	
10:00	Plasma physics at the Z6 station, GSI	ORTNER, Alex
10:25	EOS for WDM	LOMONOSOV, I. V.
10:50	Intense Ion Beams for Fusion Research	ROTH, Markus